



SEQUENCE LISTING

#5

<110> LIVSHITS, VITALIY
DOROSHENKO, VERA
GORSHKOVA, NATALIYA
BELARYEVA, ALLA
IVANOVSKAYA, LIRINA
KHOURGES, EVGENI
AKHVERDIAN, VALERY
GUSYATINER, MIKHAIL
KOZLOV, YURY

<120> MUTANT ILVH GENE AND METHOD FOR PRODUCING L-VALINE

<130> 202048US0

<140> 09/761,782

<141> 2001-01-18

<150> RU 2000101678

<151> 2000-01-26

<160> 8

<170> PatentIn version 3.1

<210> 1

<211> 492

<212> DNA

<213> Escherichia coli

<220>

<221> CDS

<222> (1)..(489)

<223>

<400> 1

atg cgc cgg ata tta tca gtc tta ctc gaa aat gaa tca ggc gcg tta 48
Met Arg Arg Ile Leu Ser Val Leu Leu Glu Asn Glu Ser Gly Ala Leu
1 5 10 15
tcg cgc gtg att ggc ctt ttt tcc cag cgt ggc tac aac att gaa agc 96
Ser Arg Val Ile Gly Leu Phe Ser Gln Arg Gly Tyr Asn Ile Glu Ser
20 25 30
ctg acc gtt gcg cca acc gac gat ccg aca tta tcg cgt atg acc atc 144
Leu Thr Val Ala Pro Thr Asp Asp Pro Thr Leu Ser Arg Met Thr Ile
35 40 45
cag acc gtg ggc gat gaa aaa gta ctt gag cag atc gaa aag caa tta 192
Gln Thr Val Gly Asp Glu Lys Val Leu Glu Gln Ile Glu Lys Gln Leu
50 55 60
cac aaa ctg gtc gat gtc ttg cgc gtg agt gag ttg ggg cag ggc gcg 240
His Lys Leu Val Asp Val Leu Arg Val Ser Glu Leu Gly Gln Gly Ala
65 70 75 80
cat gtt gag cgg gaa atc atg ctg gtg aaa att cag gcc agc ggt tac 288
His Val Glu Arg Glu Ile Met Leu Val Lys Ile Gln Ala Ser Gly Tyr
85 90 95
ggg cgt gac gaa gtg aaa cgt aat acg gaa ata ttc cgt ggg caa att 336
Gly Arg Asp Glu Val Lys Arg Asn Thr Glu Ile Phe Arg Gly Gln Ile
100 105 110
atc gat gtc aca ccc tcg ctt tat acc gtt caa tta gca ggc acc agc 384
Ile Asp Val Thr Pro Ser Leu Tyr Thr Val Gln Leu Ala Gly Thr Ser
115 120 125

ggt aag ctt agt gca ttt tta gca tcg att cgc gat gtg gcg aaa att 432
 Gly Lys Leu Ser Ala Phe Leu Ala Ser Ile Arg Asp Val Ala Lys Ile
 130 135 140

gtg gag gtt gct cgc tct ggt gtg gtc gga ctt tcg cgc ggc gat aaa 480
 Val Glu Val Ala Arg Ser Gly Val Val Gly Leu Ser Arg Gly Asp Lys
 145 150 155 160

ata atg cgt tga 492
 Ile Met Arg

<210> 2

<211> 163

<212> PRT

<213> Escherichia coli

<400> 2

Met Arg Arg Ile Leu Ser Val Leu Leu Glu Asn Glu Ser Gly Ala Leu
 1 5 10 15

Ser Arg Val Ile Gly Leu Phe Ser Gln Arg Gly Tyr Asn Ile Glu Ser
 20 25 30

Leu Thr Val Ala Pro Thr Asp Asp Pro Thr Leu Ser Arg Met Thr Ile
 35 40 45

Gln Thr Val Gly Asp Glu Lys Val Leu Glu Gln Ile Glu Lys Gln Leu
 50 55 60

His Lys Leu Val Asp Val Leu Arg Val Ser Glu Leu Gly Gln Gly Ala
 65 70 75 80

His Val Glu Arg Glu Ile Met Leu Val Lys Ile Gln Ala Ser Gly Tyr
 85 90 95

Gly Arg Asp Glu Val Lys Arg Asn Thr Glu Ile Phe Arg Gly Gln Ile
 100 105 110

Ile Asp Val Thr Pro Ser Leu Tyr Thr Val Gln Leu Ala Gly Thr Ser
 115 120 125

Gly Lys Leu Ser Ala Phe Leu Ala Ser Ile Arg Asp Val Ala Lys Ile
 130 135 140

Val Glu Val Ala Arg Ser Gly Val Val Gly Leu Ser Arg Gly Asp Lys
 145 150 155 160

Ile Met Arg

<210> 3
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic DNA
 <400> 3
 gacatgaatg tctgggtt

18

<210> 4
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic DNA
 <400> 4
 tcaacgcatt attttatcg

19

<210> 5

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 5

taaacgcgtt atcccgctg attg

24

<210> 6

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 6

gccacgcgtc tgattcatTT tcga

24

<210> 7

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 7

ctcgaggcct tttttcccag cgtgg

25

<210> 8

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 8

ctgaggcct atcacgcgga aataacg

27